

Applicant : Shackleford et al.
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4. (Currently Amended) The method of claim 1, wherein said determining topology [(310)] step includes: exhaustively providing all possible interconnection topologies for a given neighborhood number for cells of said CA-based RNG candidate.

5. (Currently Amended) The method of claim 4, wherein said determining topology [(310)] step further includes: pruning said interconnection topologies to reject interconnection topologies for which no input of a cell of said CA-based RNG candidate is connected to said cell's output.

6. (Currently Amended) The method of claim 4, wherein said determining topology [(310)] step further includes: pruning said interconnection topologies to reject interconnection topologies for which displacement values for all inputs for a cell are evenly divisible by a length of said CA-based RNG for any displacement values whose absolute value is greater than 1.

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7. (Currently Amended) The method of claim 1, wherein said screening [(320)] step includes: calculating entropy of said CA-based RNG candidate; and accepting said CA-based RNG candidate for testing based on one or more predetermined criteria.

15. (Currently Amended) The CA-based RNG implementing-module of claim 14 [[13]], wherein said screening-module comprises: an entropy-calculating-module calculating entropy of said CA-based RNG candidate; and a sorting-module accepting or rejecting said CA-based RNG candidate for testing based on a predetermined criteria.

Please add claim 23 as follows:

23. (New) An apparatus for implementing a cellular automata based random number generator (CA-based RNG), comprising:

means for determining an interconnection topology;

means for screening a CA-based RNG candidate based on said interconnection topology;

and

means for subjecting said CA-based RNG candidate to a suite of random number tests in response to said CA-based RNG passing said screening step.